

August 8, 2003

TO: Internal File

THRU: Karl R. Housekeeper, Environmental Scientist III/Engineer, Team Lead

FROM: Gregg A. Galecki, Environmental Scientist III/Hydrologist

RE: As Built Drawings, West Ridge Resources Inc. West Ridge Mine, C/007/041-AM03B, Task ID #134

SUMMARY:

On May 30, 2003, the Division received an application that provided current as built drawings of the West Ridge Mine. The following technical review addresses maps submitted for the surface facility solely from a hydrologic prospective. A total of five (5) maps were reviewed which include the following: Map 5-8 Undisturbed Drainage Culvert Profile, Map 7-1 Drainage Area, Map 7-2 Mine Site Drainage, Map 7-4 Sediment Pond – Plan & Profile, and Map 7-4A Sediment Pond Cross Sections. The current review determined the maps submitted meet the minimum requirements of the Regulations and recommend incorporation into the currently approved Mining and Reclamation Plan (MRP).

TECHNICAL ANALYSIS:

OPERATION PLAN

MAPS, PLANS, AND CROSS SECTIONS OF MINING  OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

TECHNICAL MEMO

Affected Area  ps

Map 5-8 Undisturbed Drainage Culvert Profile – This map had only two minor modifications: 1) a note addressing the installation of the by-pass culvert was modified to indicate the culvert was installed on top of the existing channel grade and no excavation into the natural channel occurred; and 2) culverts UC-QQ and UC-PP are no longer necessary due to ASCA-Z. The current map replaces a map that was last modified in April 1999.

Map 7-1 Drainage Area - Modifications in the current drawing include an approximate 850-foot extension of the disturbed area boundary southwest, down to the Carbon County road maintenance point. The extension now includes all of ASCA-W, undisturbed drainage UA-15, and undisturbed ditch UD-15. Another modification was the disturbed area boundary did not extend as far up the drainage as originally planned. The disturbed area is approximately 200 feet downstream from the originally submitted map. The shortening eliminated the need for the following undisturbed drainage areas: UA-Ya, UA-Yb, UA-Xa, UA-Xb, UA-Xc, and UA-BB. The current map replaces a map that was last modified on April 1, 1998.

Map 7-2 Mine Site Drainage – No modifications were noted to this map, with the exception of the map is now stamped, signed, and dated by a registered professional engineer. The current map replaces a map that was last modified on March 20, 2003, that did not have the certification requirements.

Mining Facilities  ps

Map 7-4 Sediment Pond – Plan & Profile - Minor modifications were made to the ponds during construction that increased the holding capacity of the ponds. The following table illustrates the changes:

Item	Cell A Vol. change	Cell B Vol. Change	Total Pond Volume
Emergency Spillway	-	0.45 to 0.48	8.12 to 8.63
Principal Spillway	4.44 to 4.67	3.23 to 3.48	7.67 to 8.15
Max. Sediment Level	1.62 to 1.85	0.23 to 0.31	1.85 to 2.16
60% Cleanout Level	0.97 to 1.11	0.14 to 0.23	1.11 to 1.34

Note: Volumes are in acre-feet

Other modifications to the map include:

- No Drainage Retention Basin at the toe of Cell B for ASCA-Z (sized at 0.09 acre-feet)
- Ditch DD-11 no longer reports to Cell B; now reports to Cell A
- Locations of the Sediment markers changed in both Cell A and Cell B

Two notes were taken off the map: 1) indicating, “The bypass culvert will be installed on top of the existing channel grade. No excavation into the natural channel will occur during culvert installation”; and 2) “All pond embankments are to be constructed with 3:1 outslopes and 2.5:1 inslopes”. Observations made on maps 5-8, 7-4, and 7-4A indicate this was accomplished. The current map replaces a map that was last modified in February 1999.

Map 7-4A Sediment Pond Cross Sections – The only modification noted on the current map from the originally submitted map, is the As-constructed surface is wider and flatter on stations 0+00 through 3+00. This does not appear to have any adverse impact on the surrounding slopes. The current map replaces a map that was last modified in April 1999.

Certification Requirements

All five (5) of the maps reviewed were stamped, signed, and dated by registered Professional Engineer Dan W. Guy (Utah #154168).

Findings:

Information provided in the proposal is adequate to meet the requirements of the Operational Plan – Maps, Plans, and Cross Sections of Mining Operations section of the regulations.

RECOMENDATIONS:

The application meets the minimum requirements of the regulations. Approval of the application is recommended.